

AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

1-26. (Cancelled)

27. (New) A phosphor element comprising:

an electron hole injection electrode and an electron injection electrode disposed opposite to each other;

a stacked layer of an electron hole transport layer, a phosphor layer, and an electron transport layer stacked in this order, said stacked layer being sandwiched between the electron hole injection electrode and the electron injection electrode with the electron hole transporting layer located close to the electron hole injection electrode, wherein:

the phosphor layer includes an inorganic phosphor layer, wherein a conductive organic material having at least one of an electron hole transporting property and electron transporting property is chemically adsorbed to at least one part of the surface of the inorganic phosphor layer,

the inorganic phosphor layer includes a phosphor material having an oxide or composite oxide as a host containing one or more elements selected from Ga, Sn and Ti, wherein a metal element is doped as an activator agent and serves as a center of the emission.

28. (New) The phosphor element according to claim 27, wherein:

a conductive organic material having an electron hole transporting property is chemically adsorbed to the surface of the inorganic phosphor layer disposed opposite to the electron hole transport layer, and

a conductive organic material having an electron transporting property is chemically adsorbed to the surface of the inorganic phosphor layer disposed opposite to the electron transport layer.

29. (New) A phosphor element comprising:

an electron hole injection electrode and an electron injection electrode disposed opposite to each other;

a stacked layer of an electron hole transport layer, a phosphor layer, and an electron transport layer stacked in this order, said stacked layer being sandwiched between the electron hole injection electrode and the electron injection electrode with the electron hole transporting layer located close to the electron hole injection electrode, and wherein:

the phosphor layer includes an inorganic phosphor particle, wherein a conductive organic material having at least one of an electron hole transporting property and electron transporting property is chemically adsorbed to at least one part of the surface of the inorganic phosphor particle, and

the inorganic phosphor particle includes a phosphor material having an oxide or composite oxide as a host containing one or more elements selected from Ga, Sn and Ti, wherein a metal element is doped as an activator agent and serves as a center of the emission.